

PATENT NO.

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TITLE: Bacteriological oxidation of alcohols to sugars

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AB Bacteriol. oxidation of alcs. (e. g., glycerol to dihydroxyacetone) is accelerated by the presence of a large no. of bacteria and vigorous aeration. The first mixt. in which sufficient bacteria have developed during slow aeration (20 hl. of a 2% glycerol soln. + malt ext., 20 kg. diatomaceous earth, sterilized, cooled to 30°, inoculated with *Acetobacter suboxidans*, and treated with 10 cu. m. air per hr. for 36 hrs.) is **provided with an absorbent material (diatomaceous earth, silica gel, etc.)** so that the clear resultant soln. after rapid aeration (growth inhibiting) (240 cu. m. air per hr. for 24 hrs.), with 95% dihydroxyacetone yield, can be decanted from the solid with all the bacteria. Fresh sterilized amts. of 2% glycerol soln. can then repeatedly be added to the solid and immediately treated with rapid aeration to give 92 to 97% yield in 20 to 24 hrs.

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